A.D. 1873, 19th DECEMBER. N° 4181.

SPECIFICATION

OF

PAUL CURIE.

EVAPORATING SEWAGE, &c.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:
PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.
1874.

A.D. 1873, 19*th* DECEMBER. N° 4181.

Evaporating Sewage, &c.

(*This Invention received Provisional Protection only.*)

PROVISIONAL SPECIFICATION left by Paul Curie at the Office of the Commissioners of Patents, with his Petition, on the 19th December 1873.

I, PAUL CURIE, of Gresham House, in the City of London, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE EVAPORATION OF WATER, SUCH IMPROVEMENTS BEING APPLICABLE TO THE TREATMENT OF SEWAGE AND OF SALINE SOLUTIONS," to be as follows:—

This Invention relates to certain improvements whereby the process of evaporation of the water, whether combined with sewage or saline solutions, is more efficaceously and rapidly performed than heretofore.

When this Invention is applied to the treatment of sewage, the liquid sewage is in the first instance disinfected, and the ammonia and sulphurous compounds contained therein fixed by means of the well-known chemical agents, such as sulphate of iron, salts of alumina, clay, plaster of Paris, chalk, and charcoal.

In order to evaporate the water from the sewage, one method previously adopted has been to force through the latter a strong current of air, or of gases, or of both combined, either in a cold or heated state,

thereby carrying away the vapourized water, and leaving the solid matter in a dry state, containing all the constituent parts of the sewage which are useful for fertilizing purposes.

The present Invention consists in producing a mixture of air and hot gases suitable for the before-mentioned process of evaporation, such gases so employed being obtained by the combustion of fuel either under steam boilers or in other furnaces. The gases so obtained are then driven or aspirated into a reservoir, in which they are mixed with a sufficient quantity of cold air to bring the whole down to any desired temperature. The mixture of air and hot gases is then blown through the liquid sewage, which is contained in suitable reservoirs or receptacles, and the evaporation of the water thereby rapidly effected.

The mode of employing this Invention to the evaporation of water contained in saline solutions is precisely similar to that herein-before described in relation to the treatment of sewage.

For the purpose of impelling the air or gases any blast engine, fan, or other apparatus adapted for the purpose is employed.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1874.